

# NWCC Credit Trading Project

Report to the  
DOE Green Tags Workshop

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# Credit Trading Project Report

- National Wind Coordinating Committee (NWCC) project funded by DOE/NREL
  - Educational piece on credit trading, covering:
    - green tags, tickets, RECs, RPS-RECs, carbon credits, pollutant avoidance credits (NO<sub>x</sub>, etc.), etc.
  - Catalogue of credit trading activities
  - Credit trading opportunities for wind
    - described and ranked key opportunities
  - Credit trading guidelines, recommendations
  - **Status:** 2nd draft out for review to NWCC

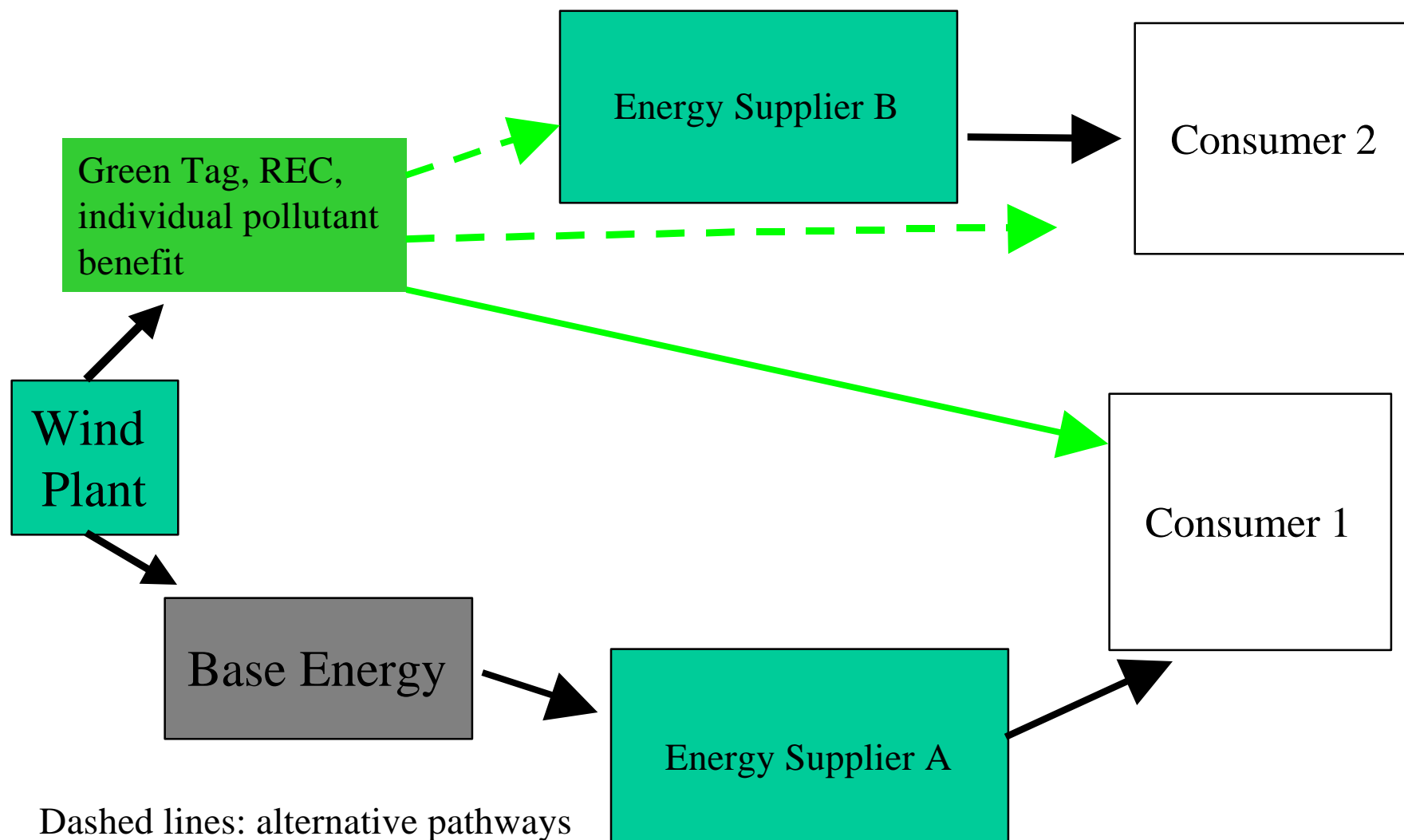
# Why Should Wind Care About Credit Trading?

- Substantial new sources of revenue
  - Taps existing & new expenditures on poll'n. reduc.
  - Mechanism to reach new customers
  - Applies to regulated and private markets
- Expands customer choice, lowers green cost
- Monetizes many of wind's benefits
- Credit markets operate independently of energy markets, mitigates technical issues
- Makes RE policies more efficient (esp RPS)

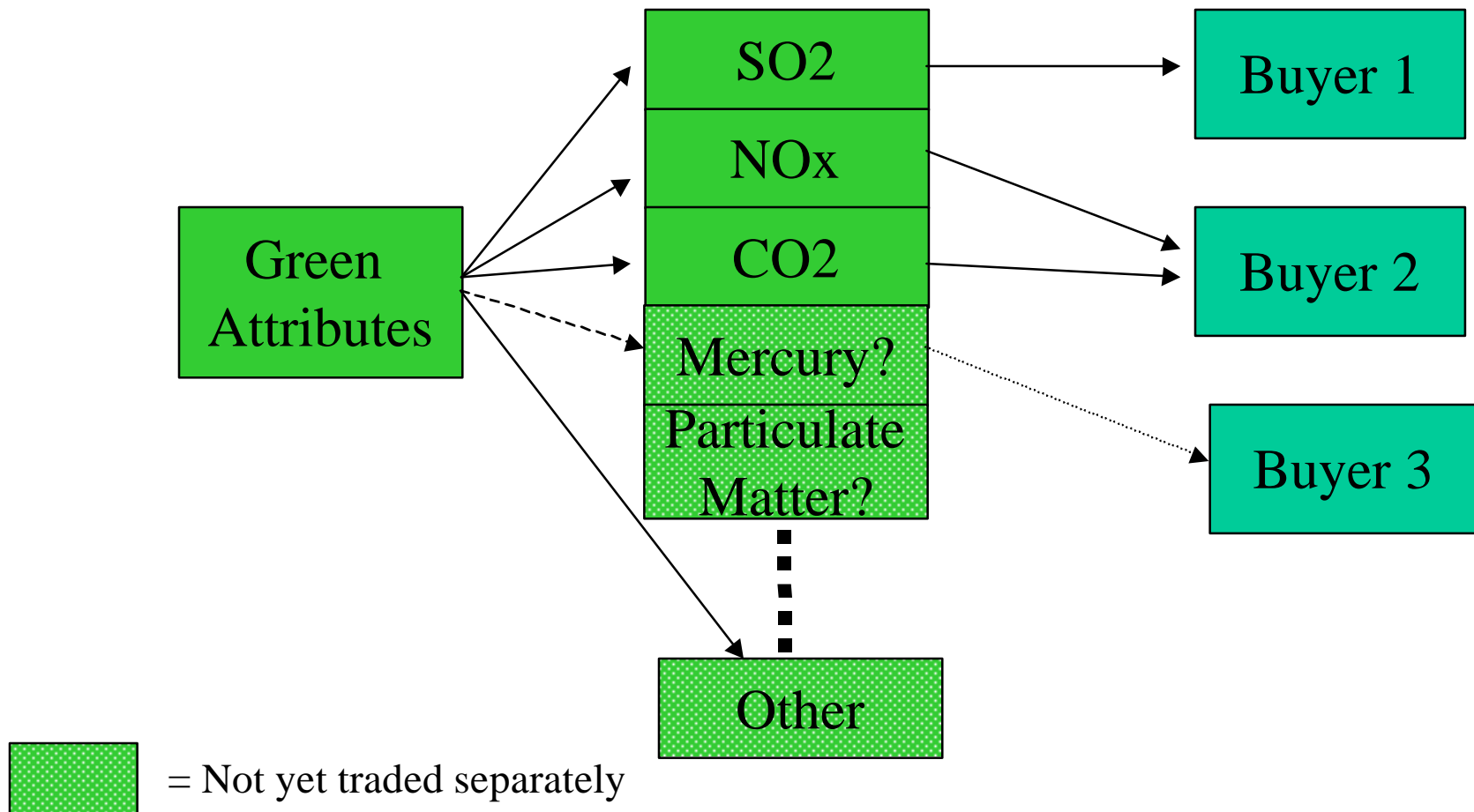
# Major Issues

- Attributes: bundled vs. unbundled
- Local, regional vs. national markets
  - local benefits, liquidity, cross-border tracking
- Seams (accounting cross jurisdictions)
- Double-Counting
  - Definitions of products, tracking and verification
- Market acceptance
  - especially of unbundling attributes from energy
  - ability to absorb multiple, nuanced products

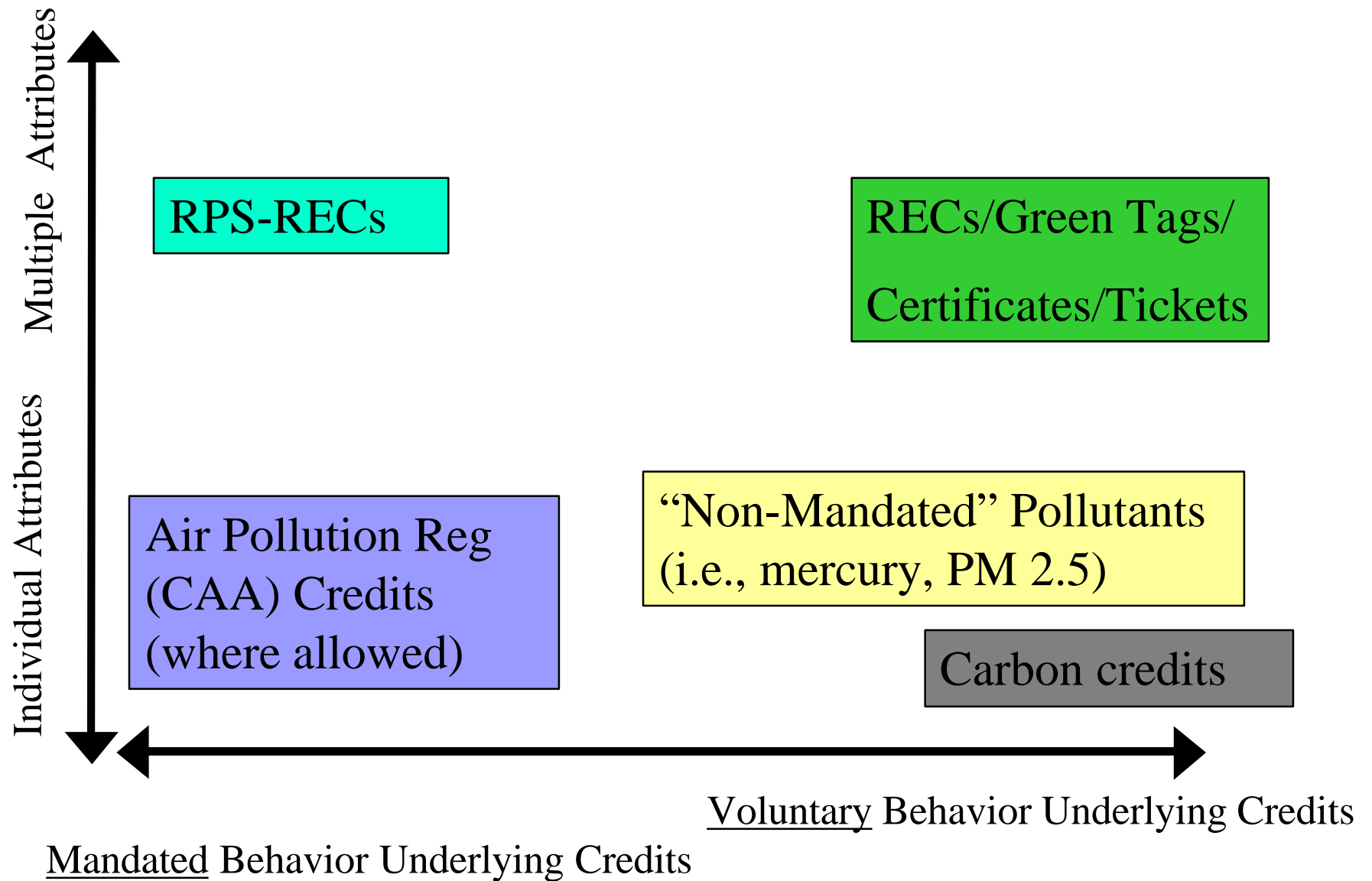
# Credits Unbundle Green Benefits from Energy



# Monetizing Specific Benefits\*



\*Make-up and levels of specific benefits depends on location (i.e., jurisdictions have different requirements; grids have different emissions characteristics)



# Summary Findings

- Wind not on the playing field in regulated pollution control programs, but can be
  - many venues at local, state, federal levels
  - new standards create substantial opportunity
- Private markets innovating but need help
  - credit trading powerful tool to expand green markets
- “Seams” issues important to viability
- Resistance to unbundling of attributes (green benefits) from energy is impeding wind credit trading in the market



# Summary Findings

- Disaggregating attributes (separating specific attributes from each other) may bring efficiency but raises issues
  - consumer protection, credibility of green markets
- Education of consumers, regulators, others is key to making credit trading work
  - unbundling similar to existing green power purchase
- Clear definitions, avoidance of double-selling critical to green market credibility

# Conclusion

- Disaggregating attributes is a hot button
- Trading likely regional (RTO, power pool?) except CO<sub>2</sub>, which could be nat'l or int'l
- Compromise might be multiple, separate markets with potential for merging
  - consumer market with “whole” green attributes, with perhaps an evolution over time toward “shades of green”; CO<sub>2</sub> may be the exception w/own market
  - “Business” market for traders of individual or packaged attributes, primarily emissions avoidance
  - RPS markets for “whole” RPS-RECs